The opinion in support of the decision being entered today is *not* binding precedent of the Board.

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

Ex parte AJAY KAMALVANSHI and MADHU GRANDHI

Appeal 2007-1239
Application 10/027,577
Technology Center 2100

Decided: August 10, 2007

Before LEE E. BARRETT, HOWARD B. BLANKENSHIP, and ST. JOHN COURTENAY III, *Administrative Patent Judges.*

BLANKENSHIP, *Administrative Patent Judge.*

DECISION ON APPEAL

This appeal involves claims 1-21, the only claims pending in this application. We have jurisdiction under 35 U.S.C. §§ 6(b), 134(a).

INTRODUCTION

The claims are directed to a method and system for fault tolerant storage of data. An identical standby copy of an active database is provided. The active processor is monitored for failure. If failure is detected, a standby processor may assume control. The switching to the identical standby copy of the active database is transparent to an external application. (Abstract.) Claim 1 is illustrative:

> 1. A method for providing persistency fault tolerant data stored in a database on a device in a networked environment for an external application, the device having an active processor system and a standby processor system, the method comprising the following steps:
>
> maintaining a checksum for each record in an active database located in the active processor system;
>
> checking the checksum during initialization;
>
> providing an identical standby copy of the active database located on the active processor system, on the standby processor system as a standby database;
>
> monitoring the active processor for a failure; and
>
> assuming control by the standby processor system when the failure is detected,
>
> wherein switching from the active database to the standby database is transparent to the external application and a magic number is kept to distinguish any tar and zipped file with the standby database.

The Examiner relies on the following prior art references to show unpatentability:

Bapat	5,317,742	May 31, 1994
Marks	5,615,364	Mar. 25, 1997
Kilner	5,649,089	Jul. 15, 1997
Berstis	6,105,021	Aug. 15, 2000
Tam	6,411,969 B1	Jun. 25, 2002

K. McCloghrie et al. (McCloghrie), *Structure of Management Information Version 2 (SMIv2)* (1999).

Ramez Elmasri, *Fundamentals of Database Systems* 3rd ed., 8, (2000).

The rejections as presented by the Examiner are as follows:

1. Claims 1-7, 9-15, and 17-21 are rejected under 35 U.S.C § 103(a) as unpatentable over Marks, Kilner, Tam, and Berstis.
2. Claims 8 and 16 are rejected under 35 U.S.C § 103(a) as unpatentable over Marks, Kilner, Tam, Berstis, Bapat, and McCloghrie.

OPINION

In the rejection applied against instant claim 1, the Examiner offers the teachings of Marks, Kilner, Tam, and Berstis. (Answer 4-6.) Marks describes a primary and backup database system. The Examiner finds that Marks fails to disclose, *inter alia*, the portion of the claim 1 "wherein" clause that recites that a magic number is kept to distinguish any tar and zipped file with the standby database. (*Id.*)

Tam discloses data backup ("dumping") to disk (e.g., col. 6, ll. 36-38) or to tape (e.g., col. 6, ll. 27-35). Tam teaches, with respect to data backup to tape (col. 6, ll. 30-35): "When dumping is done to tape, it is necessary to furnish information common to any disk-to-tape process and this

information would include the tape name, the cycle number, the version number, workers, the serial number, compression and non-compression, the density, and the SCRATCHPOOL option."

The Examiner relies on Berstis merely for the teaching that tar files and zip files were known to the artisan as types of compressed files (col. 7, ll. 58-60).

Appellants argue (Appeal Br. 8-12) that, contrary to the Examiner's finding, the relied-upon evidence fails to show a teaching that "a magic number is kept to distinguish any tar and zipped file with the standby database." Appellants argue, in particular, that the above-noted descriptions from Tam and Berstis regarding information that may be stored with a tape backup fail to teach a magic number used "to distinguish any tar and zipped file with the standby database."

Appellants in the briefs do not explain the intended meaning of a number "to distinguish any tar and zipped file with the standby database" but allege, not surprisingly, that the applied references do not teach whatever it is that the language is intended to mean. Appellants do, however, refer to the Specification for description of the language (Appeal Br. 4, in the Summary of Invention section).

> A backup copy (snapshot) of the database is made using tar and compression techniques. This backup mechanism is similar to the standard application. In addition a magic number is kept to distinguish any tar and zipped file with the datastore snapshot. A version number is stored in the zipped file. The gzip's header's comment field is used to store both the magic number and the version information. All backup copies are also kept redundant.

(Specification 11: 14-19.)

We find that the simplest, thus best, explanation for the above-quoted language in the Specification is a number stored with any tar and zipped file in a compressed backup copy of a database, to denote that the particular file was already compressed before the compression that relates to storage of the backup copy. Presumably, a number denoting that a particular file was *already* compressed before storage in a backup copy of the database would be useful when restoring the backup copy; i.e., the particular file would be restored to its original (compressed) form rather than being uncompressed along with the files that were compressed only incident to the backup storage.[1]

We also find that the original claims (Specification 18-21) do not contain the language that is now argued to distinguish over the prior art. The "magic number," in a fair reading of the Specification, has meaning only in the context of a compressed backup (standby) copy of a database, which is not a requirement of instant claim 1. Depending claim 2, for example, which was not amended when the "magic number" language was added to claim 1, further limits claim 1 as comprising the step of keeping a compressed backup copy of the database.

In any event, the problem of determining whether the "magic number" language of instant claim 1 serves to distinguish over the prior art remains.

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[1] The described embodiment of the invention as it relates to a "magic number" is not particularly helpful. A magic number, which may be read on a "little endian" machine as "0xdeadbeaf," indicates that "the endianess has changed an [sic; and?] all the subsequent displays are made by converting big endian to little endian." (Specification 16: 22-25.) Perhaps it is best not to inquire into the ways of magic.

We find that the relevant portion of Tam, *supra*, teaches that information stored with a copy of a system backed up to tape includes a serial number for the file, and "compression and non-compression." The "compression and non-compression" means, presumably, information that denotes whether the entire backup file is compressed or not compressed, and perhaps the type of compression, if compressed. Tam could also be read as describing information stored with each (individual) file that is backed up, which denotes whether that particular file is compressed or not compressed.

The Examiner finds (e.g, Answer 10) that the "magic number" as claimed reads on the serial number that is stored with the tape backup. A serial number would distinguish any *uncompressed* file that constitutes a backup copy. A (different) serial number would distinguish any *compressed* file (e.g., tar and zipped file) that constitutes a backup copy. Since the serial number distinguishes any backup file from all the other backup files, the serial number distinguishes any compressed backup file from all the other backup files. Compressed files include tar and zipped files, according to the teachings of Berstis. The serial number thus distinguishes any tar and zipped file, and is kept with the backup copy (i.e., standby database).

We are cognizant of the differences between Appellants' disclosure of what the "magic number" is to denote as compared to what the serial number in Tam is to denote.[2] However, Appellants have not shown that the literal

[2] We observe in passing that even were we to consider the Examiner's position unreasonable, the "number" in claim 1 is merely "kept," not imparting functionality to any machine. The claim, in fact, does not even require that the "number" be stored on a computer-readable medium. The "number" represents nonfunctional descriptive material; whatever meaning that one may attribute to the number need not be given patentable weight.

language of instant claim 1 fails to distinguish over Tam as amplified by the teachings of Berstis. Claims are to be given their broadest reasonable interpretation during prosecution, and the scope of a claim cannot be narrowed by reading disclosed limitations into the claim. *See In re Morris*, 127 F.3d 1048, 1054, 44 USPQ2d 1023, 1027 (Fed. Cir. 1997); *In re Zletz*, 893 F.2d 319, 321, 13 USPQ2d 1320, 1322 (Fed. Cir. 1989); *In re Prater*, 415 F.2d 1393, 1404, 162 USPQ 541, 550 (CCPA 1969). Our reviewing court has repeatedly warned against confining the claims to specific embodiments described in the specification. *Phillips v. AWH Corp.*, 415 F.3d 1303, 1323, 75 USPQ2d 1321, 1334 (Fed. Cir. 2005) (en banc).

Appellants could have amended the claim consistent with how Appellants wish the claim to be interpreted, to the extent that support is found in the Specification. "An essential purpose of patent examination is to fashion claims that are precise, clear, correct, and unambiguous. Only in this way can uncertainties of claim scope be removed, as much as possible, during the administrative process." *In re Zletz*, 893 F.2d at 322, 13 USPQ2d at 1322.

We do not understand Appellants' position to be that the words "magic number" distinguish over a serial number as described by Tam. The position appears to be based on the differences between what the respective numbers are to denote. We are not persuaded that the language of claim 1 sets forth the distinction of what the number is to denote in a way that avoids the prior art. In any event, if we assume that the term "magic number" has some particular recognized meaning in the art, Appellants have not provided

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See Manual of Patent Examining Procedure (MPEP) § 2106.01 (Eighth Ed., Rev. 5, Aug. 2006).

any evidence that the artisan would not consider the serial number described by Tam as falling within the broadest reasonable interpretation of a "magic number."

Appellants also allege (Appeal Br. 12) improper "hindsight reconstruction" of the invention of claim 1. The only reasoning offered in support of the allegation -- other than the complaint that the Examiner applied the prior art to the claim -- is that the Examiner used four references to make the rejection. The proper criterion is not the number of references, but what they would have meant to a person of ordinary skill in the field of the invention. *In re Gorman*, 933 F.2d 982, 986, 18 USPQ2d 1885, 1888 (Fed. Cir. 1991). We are not persuaded that the references have been used in a way contrary to the law of obviousness.

As we are not persuaded of error in the rejection of claim 1, we sustain the rejection.

Instant claim 6 recites the step of generating structure and metadata corresponding to the database using the definition (of the database) in the predetermined format. The Examiner finds (Answer 6-7) that the requirements of claim 6 are inherent in Marks, because the step as claimed is inherent in any database. Appellants contend to the contrary (Appeal Br. 15-16). The Examiner in response (Answer 12) provided the Elmasri reference in support of the finding of inherency. Appellants respond, in turn, that Elmasri does not teach or suggest "a magic number is kept to distinguish any compressed file with the standby database." (Reply Br. 5-6.)

We agree with Appellants' assessment of Elmasri. Appellants do not, however, explain how the reference fails to support the finding of inherency. We consider Elmasri sufficient to establish the Examiner's finding of

inherency as fact, particularly in view of Appellants' response to the evidence. Appellants have waived any right to challenge the timing of the Examiner's production of the evidence; moreover, Appellants' arguments in the Appeal Brief relating to claim 6 could be read as a demand for evidence. We sustain the rejection of claim 6.

Instant claim 7 recites the step of accessing the active database through an application program interface. The Examiner points to column 3, lines 5 through 8 of Marks for the teaching, which describes an application program causing a modification to the primary database. Appellants argue (Appeal Br. 16-17) there is no accessing of an active database through an application program interface in Marks. We disagree with Appellants' assessment, and consider the reference to provide ample support for the Examiner's finding. We sustain the rejection of claim 7.

We also sustain the rejection of the remainder of the claims (2-5, 9-15, and 17-21) rejected over the combined teachings of Marks, Kilner, Tam, and Berstis. Appellants place the remaining claims in different headings in the Brief, but repeat arguments we have considered in relation to the rejection of claim 1. Mere repetition of claim recitations does not constitute arguments for separate patentability. *See* 37 C.F.R. § 41.37(c)(1)(vii).

Finally, we also sustain the rejection of claims 8 and 16 under 35 U.S.C § 103(a) as unpatentable over Marks, Kilner, Tam, Berstis, Bapat, and McCloghrie. Appellants' allegation that Bapat and McCloghrie fail to remedy the deficiencies in the rejection of the base claims is not persuasive, as no such deficiencies have been shown.

CONCLUSION

In summary, the rejection of claims 1-21 under 35 U.S.C § 103(a) is affirmed.

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a).

AFFIRMED

tdl/gw

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